

This listing of claims will replace all prior versions and listings of the claims in the application:

**Listing of Claims:**

1. (Currently Amended) An ink jet print engine with Internet connectivity, comprising:  
  
printer hardware and software providing a functioning printer, including a piezoelectric printhead for dispensing ink onto a substrate; and  
  
Internet hardware and software for providing the print engine with Internet connectivity, including a microprocessor communicating with the printer hardware and software, the microprocessor comprising an embedded Internet server having a valid IP address;  
  
said printer hardware or software capable of providing diagnostic information concerning said printer and which is transmittable over the Internet.
2. (Original) The ink jet print engine of Claim 1, wherein the printer software stores one or more valid IP addresses of servers corresponding to maintenance or service centers for one or more components of the print engine.
3. (Currently Amended) The ink jet print engine of ~~Claim 1~~, ~~wherein the microprocessor comprises a chip~~ Claim 2, wherein said diagnostic information is transmitted between at least one of said servers and said one or more components.
4. (Currently Amended) The ink jet print engine of Claim 3 ~~1~~, wherein ~~the chip comprises~~ said microprocessor contains Ethernet MAC and system controllers.

5. (Original) The ink jet print engine of Claim 4, wherein the system controllers include memory, DMA, interrupts and timers.
6. (Currently Amended) The ink jet print engine of Claim 3 1, wherein ~~the chip comprises~~ said microprocessor contains cache, I/O, real time operating systems, device driver software and communications protocol software.
7. (Original) The ink jet print engine of Claim 1, wherein the printer comprises integrated networking software.
8. (Original) The ink jet print engine of Claim 1, wherein the microprocessor uses an RTOS operating system.
9. (Currently Amended) A print engine with Internet connectivity, comprising:
  - printer hardware and software providing a functioning printer for dispensing information onto a substrate; and
  - Internet hardware and software for providing the print engine with Internet connectivity, including a microprocessor communicating with the printer hardware and software, the microprocessor comprising an embedded Internet server having a valid IP address; said microprocessor capable of reporting at least diagnostic information about said printer hardware over the Internet.

10. (New) A printer device comprising:
  - printer hardware and software for performing a print function and printer diagnostics;
  - a processor contained in said printer device;
  - Internet connection hardware and software, said Internet connection hardware and software presenting a valid Internet address for said printer device to the Internet;
  - said printer software also reporting printer diagnostics over the Internet using said Internet address.
11. (New) The printer device of Claim 10 further comprising an Ethernet hardware and software interface.
12. (New) The printer device of Claim 10, wherein said microprocessor gathers statistics concerning said printer device.
13. (New) The printer device of Claim 12 further comprising said Internet connection hardware and software reporting said statistics over the Internet.
14. (New) The printer device of Claim 10, further comprising said printer device acting as an independent Internet server.
15. (New) The printer device of Claim 10, wherein said Internet connection hardware and software uses TCP/IP protocols.